ARCHITECTURE AND IMPLEMENTATION METHODS OF DIGITAL PREDISTORTION CIRCUITRY

Abstract of the Invention

A predistorter including a modulator configured for use with an RF power amplifier or in an amplifier system that combines in a data structure correction factors for amplitude and phase non-linearities in the responses of the amplifier and the modulator. Correction factors for memory effects in the response of the RF power amplifier may also be calculated within the data structure from scale factors transferred into the data structure. Such a calculation may be based on a scaled polynomial. A circuit for applying the difference equation to the correction factors may also be included.